Treating Chronic Illness

Use of Appropriate Medications for People with Asthma

If asthma is not properly managed, the patient is likely to have an attack (an episode where the airways become constricted and it becomes very hard to get enough oxygen) severe enough to require hospitalization or even lead to death. Proper management of asthma includes the use of appropriate medications that act directly to reduce the inflammation of the airways. There are two medications — corticosteroids (often called steroids) and cromolyn sodium — that are the mainstays of maintenance therapy for people with moderate or severe asthma.

This measure estimates the percentage of enrollees with asthma who were dispensed at least one prescription for inhaled corticosteroids and/or cromolyn during the past year. ***This measure is being evaluated for inclusion in a future reporting set.*** The drugs mentioned above are not medically appropriate for people with mild, intermittent asthma; therefore a valid way of distinguishing among levels of severity needs to be developed. Further, among moderate and severe asthmatics, the duration of treatment can be quite long. A single prescription is likely not adequate to assess whether effective care is being given. A valid way of measuring the entire regimen needs to be developed. The Robert Wood Johnson Chronic Care Initiative is evaluating and testing asthma measures. NCQA is collaborating in this effort to assure the best measure is developed for this important clinical area. These issues, among others, will be evaluated during the testing phase.

Eye Exams for People with Diabetes

Diabetes is the leading cause of adult blindness in the United States. Therefore, it is important that people with diabetes have their eyes examined regularly so that appropriate treatment can be initiated at the first sign of a problem. To determine if there are any problems, the eye doctor examines the retina, a light-sensitive layer of tissue in the back of the eye that receives and transmits visual information to the brain.

How often diabetics should have the eyes examined is currently a matter of some debate. Clearly, diabetics with advanced disease require examinations every year. However, diabetics with mild, or no, eye disease can be safely screened every other year.

This measure estimates the percentage of diabetic plan members who received an eye exam in the past year. Because some diabetics can be screened less frequently than annually, one would not necessarily expect a screening rate of 100% in each plan. We are working to develop a measure that will take into account the appropriate screening interval for diabetics with different needs, and will replace this measure with one that is more refined when such a measure is available. ***This measure is required for reporting.***

Monitoring Diabetes Patients

This year alone, 160,000 Americans will die from diabetes–more than from breast cancer, AIDS and other chronic diseases combined. Diabetes costs Americans more than $92 billion in health care expenditures and lost productivity annually. Diabetes is the single leading cause of kidney failure and amputations not related to accidents. However, many health problems associated with the condition can be prevented or moderated with proper care, ensuring that most diabetics can live long, healthy lives.

An important part of managing diabetes, therefore, involves making sure glucose levels are kept within acceptable limits. To evaluate whether glucose is being maintained within acceptable limits, it is important to regularly perform a blood test called a glycohemoglobin (glycosylated hemoglobin) level test.

This measure estimates the percentage of diabetic patients enrolled in the plan who received at least two blood tests to check glycohemoglobin levels during the past year. ***This measure is being evaluated for inclusion in a future reporting set.*** The screening recommendations for insulin-dependent diabetics are different from those for non-insulin-dependent diabetics. Thus, a sound methodology for distinguishing between insulin-dependent and non-insulin-dependent diabetics is needed. It is also not clear whether the number of screenings or the actual screening results should be measured. These issues, among others, will be evaluated during the testing phase.

Prevention of Stroke in People with Atrial Fibrillation

Atrial fibrillation is a disorder found in 2.5 million Americans. It causes the two small chambers of the heart — the atria — to quiver instead of beating effectively. Because of this, blood is not pumped completely out of them when the heart beats — blood pools and may clot. If a blood clot from one of the atria becomes lodged in an artery in the brain, a stroke results. According to the American Heart Association, 15% of strokes occur in people with atrial fibrillation. Taking warfarin, a prescription blood-thinning (anticoagulant) medication, decreases by two-thirds the probability that people with this condition will have a stroke and lowers their risk of death by one-third.

Surprisingly, current evidence suggests that a very large number of people with atrial fibrillation are **not** receiving warfarin. This means that these people are at much higher risk for stroke than they need to be.

This measure estimates the percentage of plan members who have been diagnosed with chronic atrial fibrillation who received a prescription for warfarin. ***This measure is being evaluated for inclusion in a future reporting set.*** Warfarin is used at different stages in the management of atrial fibrillation. Also there are some patients who should not take warfarin at all, thus, a method for identifying which patients should be on warfarin needs to be developed. These issues, among others, will be evaluated during the testing phase.

Outpatient Care of Patients Hospitalized for Heart Failure

About 2 million Americans annually experience heart failure, a condition in which the heart keeps working but pumps ineffectively, causing a buildup of fluid in the body. Heart failure can be caused by many forms of heart disease, including coronary artery disease, past heart attack, and high blood pressure. Mortality rates from heart failure are 10% within 1 year of a cardiac problem due to heart failure and 50% within 5 years. In addition, the fatigue and the swelling of the feet and legs (called edema) caused by the condition may significantly affect a person's ability to perform everyday tasks. In 1990, $7 billion was spent on hospitalization and $10 billion was spent on overall health care for this condition.

A type of prescription drug called angiotensin-converting enzyme (ACE) inhibitors significantly reduces death rates and symptoms in patients with heart failure. ACE inhibitors cause arteries to expand, making it easier for blood to flow, thus reducing the heart's work load. Medical literature on the subject strongly suggests that most patients with heart failure should receive ACE inhibitors as part of their post-hospital discharge treatment program.

This measure estimates the percentage of plan members who were prescribed ACE inhibitors within 90 days of discharge after hospitalization for heart failure. ***This measure is being evaluated for inclusion in a future reporting set.*** A risk-adjustment strategy needs to be developed to make it a valid measure for comparing between plans. Some plans may also have difficulty collecting sufficient data for this measure. A strategy needs to be developed for dealing with cases in which ACE inhibitors are not recommended. It must also be decided whether to look at all patients with congestive heart failure or just newly diagnosed ones. These issues, among others, will be evaluated during the testing phase.

Cholesterol Management of Patients Hospitalized for Coronary Artery Disease

About 1.5 million Americans annually are diagnosed with coronary artery disease, where the arteries supplying the heart muscle with blood are narrowed, blocking blood flow. Another 490,000 Americans die from the disease each year. The annual direct and indirect health care costs from the condition are estimated to be $47 billion. One of the changeable factors that contributes to excess death among persons with heart disease is high cholesterol. Those with very high cholesterol levels have a four-fold increased risk of death. Therefore, it is important for patients who have been hospitalized for coronary artery disease to keep their cholesterol below the recommended level.

Total cholesterol levels are composed of two parts: low-density lipoprotein cholesterol (LDL-C) and high-density lipoprotein cholesterol (HDL-C). The association between cholesterol and increased risk of death from heart disease is more strongly linked to LDL-C.

This measure estimates the percentage of plan members hospitalized for coronary artery disease whose LDL-C level was below 100 mg/dL 12 months after the hospitalization. ***This measure is being evaluated for inclusion in a future reporting set.*** Whether it is better to measure cholesterol relative to a target value (100 mg/dL) or to look at changes in cholesterol level over time needs to be determined. A risk-adjustment strategy may need to be developed to account for plans that have patients with more treatment-resistant disease. These issues, among others, will be evaluated during the testing phase.

Controlling High Blood Pressure

High blood pressure, or hypertension, is one of the most common chronic diseases among American adults. About 43 million people — 30% of the adult population — have hypertension. It is considered a risk factor for heart disease because it increases the heart's work load, causing it to enlarge and weaken over time. Controlling high blood pressure is essential in preventing heart disease. For people with a personal or family history of high blood pressure, it is important to know how well a plan manages the blood pressure of members with hypertension. A doctor or nurse uses a stethoscope and a pressurized cuff to measure the pressure in an arm artery at two times: during a

heartbeat (systolic pressure) and between beats (diastolic pressure). For most adults, a blood pressure reading less than 140/90 means there is no cause for alarm.

This measure looks at the proportion of adult members with a diagnosis of hypertension whose blood pressure is adequately controlled. ***This measure is being evaluated for inclusion in a future reporting set.*** We need to determine whether to measure control of hypertension in terms of an absolute level of blood pressure or a change in blood pressure over time. This issue, among others, will be evaluated during the testing phase.

Assessment of How Breast Cancer Therapy Affects the Patient's Ability to Function

Adequate treatment of breast cancer must include attention to the clinical, psychological and functional outcomes of care. How the patient herself rates the repercussions of the treatment provides valuable information about how both the disease and treatment affect an individual's ability to function in everyday life.

This measure involves a 28-item self-administered survey designed to assess the patient's quality of life following treatment for cancer. It includes questions about the patient's physical, emotional and functional well-being, social and family situation and relationship with her doctor. ***This measure is being evaluated for inclusion in a future reporting set.*** Because the number of breast cancer cases is relatively low, this measure may not be useful for comparing health plans. The small numbers of cases may also threaten individual patient confidentiality. We need to determine how to summarize the results of the survey in a valid way. These issues, among others, will be evaluated during the testing phase.

The Health of Seniors

Maintaining the ability to function in everyday life is critically important to a person's quality of life. This measure reflects the belief that high quality health care can either improve or at least slow the rate of decline in its senior members' ability to lead an active and independent life.

Information on ability to function may help a health plan select an appropriate treatment program for a member. How well a person is functioning may also be used to predict other factors, such as whether people will need long-term care or how long they might live. For example, one study showed that persons age 70 to 79 who rated their health as poor or bad were 19 times more likely to die within three years as those who rated their health as excellent.

This measure assesses how effectively the plan is helping its elderly members maintain a high quality of life, by using a survey that asks them to rate whether their ability to function has improved or worsened over time. ***This measure is required for reporting.***

Prescription of Antibiotics for the Prevention of HIV-Related Pneumonia

Pneumocystis carinii pneumonia is the most common infection among patients with advanced HIV infection. In fact, it occurs in approximately 50%-66% of HIV-infected adults and it is the most common cause of hospitalization and death for those with HIV infection. Fortunately, giving HIV-infected patients small doses of the same antibiotics used to treat this type of pneumonia can help prevent it from developing in up to 80% of cases. The Centers for Disease Control and Prevention recommend prophylaxis (the use of antibiotics to prevent rather than treat a disease) for all HIV-infected patients with T-cell counts below 200 (which indicates severe suppression of their immune systems).

This measure estimates the percentage of HIV-infected plan members with T-cell counts below 200 who have been prescribed appropriate antibiotics. ***This measure is being evaluated for inclusion in a future reporting set.*** Although HIV has been established as a reportable infection by the CDC, there is some concern about providers' willingness to release records and other information about HIV patients. Since the number of HIV patients is expected to vary considerably from region to region, some plans may not have enough of these patients to calculate a meaningful statistic for plan-to-plan comparison. These issues, among others, will be evaluated during the testing phase.

Behavioral Health

Follow-Up After Hospitalization for Selected Mental Illnesses

According to the National Institute for Mental Health, a significant percentage of individuals experience some form of mental illness (including manic depression, paranoia and schizophrenia), yet only a small proportion of these are medically diagnosed. Suicide, the most serious risk to those with mental illness, causes 15% of the deaths associated with untreated mood disorders. Those deaths tend to occur 4 to 5 years after the first clinical episode. The *Healthy People 2000* goal is to reduce to less than 10% the prevalence of mental disorders among children and adolescents.

It is important to provide regular follow-up therapy to patients after they have been hospitalized for mental illness. An outpatient visit with a mental health practitioner within 30 days of discharge is necessary to make sure that the patient's transition to the home or work environment is supported and that gains made during hospitalization are not lost. It also helps health care providers detect early post-hospitalization reactions or medication problems and provide continuing care.

This measure estimates the percentage of plan members age 6 and over who were hospitalized for selected mental disorders and who were seen on an outpatient basis by a mental health provider within 30 days after their discharge. ***This measure is required for reporting.***

Screening for Chemical Dependency

Alcohol and drug abuse take an enormous toll — physical, psychological and financial — on millions of lives. According to the American Psychiatric Association, 10 million U.S. adults and 3 million children under age 18 are alcoholics. Others place the total estimate as high as 22 million. The National Academy of Science's Institute of Medicine estimates that more than 5.5 million Americans use drugs to the extent of suffering physical and psychological distress if they stop. Unfortunately, chemical dependency is a condition that frequently goes undetected for long periods. Diagnosis is necessary to help the affected person get appropriate treatment.

This measure estimates whether a plan is trying to identify members with chemical dependency problems by educating their health care providers. It does this by asking plan members if their doctor has asked them about alcohol or drug abuse during the past year. ***This measure is being evaluated for inclusion in a future reporting set.*** More needs to be known about how well respondents' answers reflect whether they were actually screened for substance abuse problems. Also, we need to establish whether routine screening actually results in treatment for substance abuse. These issues, among others, will be evaluated during the testing phase.

Continuity of Care for Substance Abuse Patients

Recovery from substance dependence and abuse does not follow a straight, even course. Relapses are extremely common, especially during early recovery, when the stress may be hardest to handle. In substance abuse rehabilitation, individuals often must change their approaches to handling stress, relationships and habits that contribute to the substance abuse. The best way to help patients "stay on the wagon" after detoxification is to provide appropriate follow-up care.

That is why it is important to examine the effectiveness of the plan's system for providing continuity of care to members with substance abuse problems. This measure looks at the number of patients discharged from a detoxification program to determine how many received follow-up care and how many were readmitted. ***This measure is being evaluated for inclusion in a future reporting set.*** The categories of follow-up encounters that are reported for patients discharged from the hospital after substance abuse detoxification need to be further defined with regard to the appropriateness of the care given and whether they may signify continuous care or a relapse. The applicability of this measure, which was originally designed for use by behavioral health care organizations, to all health plans needs to be evaluated. These issues, among others, will be evaluated during the testing phase.

Failure of Substance Abuse Treatment

When a patient who has undergone detoxification treatment for chemical dependency requires the same treatment again within a short period of time, this signifies that the treatment of this patient's substance abuse problem may not have been successful. Patients may require repeated detoxification for a number of reasons, such as severity of the illness that makes it difficult for the patient to respond to treatment, or problems in the provision of effective treatment by the health plan, and other factors.

This measure estimates the percentage of people who required repeated treatment. ***This measure is being evaluated for inclusion in a future reporting set.*** A risk-adjustment strategy addressing the characteristics of the substance abuse problem and sociodemographic factors of the enrolled population needs to be developed to assure that the measure is valid for comparing plans. The applicability of this measure, which was originally designed for use by behavioral health care organizations, to all health plans needs to be evaluated. These issues, among others, will be evaluated during the testing phase.

Continuation of Depression Treatment

Major depression and recurrent depression (dysthymia) are among the most prevalent mental disorders, affecting about 10% of all adults each year. According to the Agency for Health Care Policy Research's *Guideline on Depression in Primary Care*, clinical depression may include apathy, anxiety or irritability, rather than or in addition to sadness. These problems may continue for months and severely impact a person's functioning in everyday life.

Fortunately, about 65%-70% of people with major depression respond to antidepressant medication. The treatment of clinical depression includes several phases. After the treatment of the acute phase of the depression, a therapy program must be set up to prevent relapses. Patients who initially received antidepressants should continue to take these medications until they and their physicians agree it is safe to decrease or discontinue them. Premature discontinuation of treatment is associated with a 25%

relapse rate within two months. The World Health Organization recommends indefinite maintenance therapy for patients who have experienced two episodes of depression within a 5-year period.

This measure looks at the percentage of people with major depression who are taking antidepressants and who were prescribed at least four months of antidepressants. ***This measure is being evaluated for inclusion in a future reporting set.*** We need to know more about the influence of patient compliance on the rates reported in this measure. A method is needed to identify patients who received a prescription for a new episode of depression, so that patients in a later phase of therapy who appropriately discontinued their medication can be excluded from the measure. The method of data collection is likely to have an influence on the rates reported in this measure and affect comparability of data. These issues, among others, will be evaluated during the testing phase.

Availability of Medication Management and Psychotherapy for Patients with Schizophrenia

Schizophrenia, one of the most debilitating mental disorders, affects about 1% of American adults. It is characterized by a changed sense of reality, probably caused by certain changes in the brain chemistry. This condition affects every aspect of psychological functioning, including all the ways in which people think, feel, view themselves and relate to others.

Schizophrenic patients are usually treated with powerful drugs called antipsychotics or neuroleptics, which can reduce confusion, anxiety, delusions and hallucinations. According to the National Mental Health Advisory Council and the American Psychiatric Association, more than 60% of those with schizophrenia can be relieved of acute symptoms with proper therapy. As schizophrenia often runs its course over many years, patients may need to take medications for long periods. However, like other medications, psychiatric drugs have side effects and must be used with care. Ideally, psychiatrists should monitor their patients to be sure they continue to do well on their medication. This is important to regulate the appropriate doses and types of medications, monitor undesirable medication effects and coordinate care with family members, social agencies and other physicians and/or mental health practitioners involved in the care of the patient.

The purpose of this measure is to assess whether a plan adequately manages the drug treatment of this group of mentally ill members. To do this, it determines the number of adult members with schizophrenia who had a least four medication-management visits or psychotherapy visits with a psychiatrist in the past year. ***This measure is being evaluated for inclusion in a future reporting set.*** This measure's ability to predict improved outcomes is not known. We need to know more about the influence of patient compliance on the rates reported in this measure. The applicability of this measure, which was originally designed for use by behavioral health care organizations, to all health plans needs to be evaluated. The low prevalence of schizophrenia may make it difficult for smaller plans to obtain meaningful data. These issues, among others, will be evaluated during the testing phase.

Appropriate Use of Psychotherapeutic Medications

Prescribing psychotherapeutic drugs to patients who do not really need them is of particular concern, because many of these drugs have serious side effects and may affect the person's normal functioning.

This measure tries to assess to what extent the plan uses these drugs appropriately by determining what percentage of enrollees given psychotherapeutic drugs were diagnosed with a condition that warrants such a prescription (including senile or presenile psychosis, alcoholic psychosis, drug psychosis, transient organic psychosis, chronic psychosis, schizophrenic psychosis, affective psychosis, paranoid states or other non-organic psychoses). ***This measure is being evaluated for inclusion in a future reporting set.*** This measure depends heavily on health plans' ability to link diagnostic and pharmaceutical data, and more needs to be known about how this influences rates reported for the measure. This issue, among others, will be evaluated during the testing phase.

Family Visits for Children Undergoing Mental Health Treatment

An important factor in the treatment of patients with behavioral health disorders is understanding the importance of their home environment as it contributes to stress or serves as support for the patient. This is especially true of children, where involving family/caregivers in the treatment process may be vital to its success.

This measure assesses to what extent the health plan tries to involve family/caregivers in the treatment of children age 12 and under by counting the number of them who had at least one family visit during the calendar year. ***This measure is being evaluated for inclusion in a future reporting set.*** More needs to be known about how to identify children who received family services, as these may not be coded as behavioral health services. It may also be difficult to identify children receiving treatment for behavioral health problems, as practitioners may be hesitant to document a mental health diagnosis for a child in order to avoid stigmatization. The applicability of this measure, which was originally designed for use by behavioral health care organizations, to all health plans needs to be evaluated. These issues, among others, will be evaluated during the testing phase.

Patient Satisfaction with Mental Health Care

For many consumers, an important factor in making a health care decision is how satisfied people similar to themselves were with the health care they received. This measure provides information on how adults rated three aspects of the mental health care provided by their plan. These include their overall satisfaction with the care received, whether the care they received helped them, and whether they were able to get an appointment in a timely fashion. When making comparisons across plans based on these ratings, consumers should keep in mind that many factors can influence patients' answers. While mental health professionals can positively influence their patients in helping them understand what treatment goals are realistic for them, factors such as patients' familiarity with managed care, and the severity and potential for improvement of their conditions can also influence patients' answers.

This measure is being evaluated for inclusion in a future reporting set. A risk-adjustment strategy addressing patients' diagnoses and sociodemographic factors may need to be developed to make this measure useful for comparing plans. Confidentiality may be of some concern because of the sensitive nature of the diagnoses, and patient permission may be required if the survey is being administered by an independent group. The applicability of this measure, which was originally designed for use by behavioral health care organizations, to all health plans needs to be evaluated. These issues, among others, will be evaluated during the testing phase.

USE OF SERVICES

This domain provides information on how a plan manages and expends its resources, which may give consumers and purchasers a sense of the plan's priorities. Consumers and purchasers should be aware, however, that use of services is affected by many member characteristics that can vary greatly among health plans, including age and sex, current medical condition, socioeconomic status and race. To make the best use of this information, consumers and purchasers should use it as a starting point for discussions with the health plan.

There are two different kinds of measures in this domain:

- "Traditional" Use of Services measures, which are often expressed as rates of service use per 1,000 member years (a number which is usually close to the number of members enrolled in a year) or member months (which can be thought of as the number of members enrolled in a year multiplied by 12) and
- Use of Services measures that express the percentage of members who received certain services. These measures are similar to the measures in the Effectiveness of Care domain in that they report information on members who were continuously enrolled in the health plan for a certain period of time.

Frequency of Ongoing Prenatal Care

Complications can arise at any time during pregnancy. For that reason, continued monitoring throughout pregnancy is necessary. The frequency and adequacy of ongoing prenatal visits, therefore, is an important factor in minimizing pregnancy problems. The American College of Obstetricians and Gynecologists recommends that prenatal care begin as early in the first trimester of pregnancy as possible, with additional visits every 4 weeks for the first 28 weeks of pregnancy, every 2 to 3 weeks for the next 8 weeks, and then weekly until delivery.

This measure tracks plan members who had live births during the past year to determine the percentage of recommended prenatal visits they had. ***This measure is required for reporting.***

Well-Child Visits in the First 15 Months of Life

Well-child visits, or regular check-ups, are one of the best ways to detect physical, developmental, behavioral and emotional problems so appropriate treatment can be given. They also provide an opportunity for the physician to offer guidance and counseling to the parents. These visits are of particular importance during the first year of life, when an infant undergoes substantial changes in abilities, physical growth, motor skills, hand-eye coordination and social and emotional growth. The American Academy of Pediatrics (AAP) recommends 6 well-child visits in the first year of life: the first within the first month of life and then around 2, 4, 6, 9 and 12 months. The *Healthy People 2000* goal is to increase to at least 90% the proportion of all babies 18 months old and younger who receive the recommended primary care services.

This measure estimates the percentage of children who had one, two, three, four, five or six well-child visits by the time they turned 15 months of age. ***This measure is required for reporting.***

Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life

Well-child visits during the pre- and early-school years are particularly important to help children reach their full potential and become productive and successful members of society. By detecting vision, speech and language problems early, a child can be helped to improve communication skills and avoid or reduce language and learning problems. The AAP recommends annual well-child visits for 2 to 6 year olds.

This measure assesses the percentage of children who are 3, 4, 5 and 6 years of age who received at least one well-child visit with a primary care physician during the past year. ***This measure is required for reporting.***

Adolescent Well-Care Visit

An annual preventive health care visit that addresses the physical, emotional and social aspects of health and promotes a healthy lifestyle as well as disease prevention is extremely important for adolescents. Adolescence is a time of transition between childhood and adult life and is accompanied by dramatic changes. Unintentional injuries, homicide and suicide are the leading causes of adolescent death, while sexually transmitted diseases, substance abuse, pregnancy, and antisocial behavior are important causes of physical, emotional and social adolescent problems. The American Medical Association *Guidelines for Adolescent Preventive Services*, the federal government's Bright Futures program and the new AAP guidelines all recommend comprehensive annual check-ups for adolescents.

This measure reports the percentage of plan members age 12 to 21 who had one or more well-care visit with a primary care provider during the past year. ***This measure is required for reporting.***

Frequency of Selected Procedures

This measure lists several, mostly surgical, procedures that are frequently performed and that contribute substantially to expenses. Considerable variation has been observed in how often these procedures are performed. These rates are likely to be strongly influenced by the way a health plan manages care. ***This measure is required for reporting.***

Inpatient Utilization — General Hospital/Acute Care

Inpatient utilization estimates the extent to which health plan members received inpatient hospital treatment, either because of pregnancy and childbirth, for surgery or for non-surgical medical treatment. Plans report how many hospital stays occurred during the reporting year, how long patients stayed in the hospital on average and other data. ***This measure is required for reporting.***

Ambulatory Care

This measure estimates members' use of four different kinds of ambulatory services: outpatient visits, emergency room visits, ambulatory surgery and observation room stays. Outpatient visits include office visits or routine visits to hospital outpatient departments. A health plan that effectively manages ambulatory treatment of patients should be able to keep the number of emergency room visits low. Looking at inpatient surgery (see the previous measure) and ambulatory surgery together can help purchasers

and members assess how much of the surgery done in the plan is performed on an outpatient basis. Observation rooms are usually part of hospitals' outpatient departments, where patients may stay for one or two days "for observation," during which time the physician decides whether an inpatient admission is necessary. ***This measure is required for reporting.***

Inpatient Utilization — Nonacute Care

This measure describes the extent to which members received inpatient treatment in nursing homes or rehabilitation centers. Plans report the number of stays in institutions for nonacute care in the reporting year and how long patients stayed in these institutions on average. ***This measure is required for reporting.***

Discharge and Average Length of Stay — Maternity Care

Childbirth is a very common reason for hospitalization. This measure describes how many women enrolled in the health plan gave birth during the reporting year and how long the women remained in the hospital on average after vaginal births or Cesarean section deliveries. ***This measure is required for reporting.***

Cesarean Section and Vaginal Birth After Cesarean (VBAC-Rate)

Cesarean sections are among the most frequently performed surgical procedures, and there has been concern that they are not always necessary to perform. For this reason, many women may want to know the Cesarean-section rate of a hospital or a health plan when deciding which one to choose. Women may also be interested in knowing the VBAC-rate, which tells how many women delivered vaginally after a previous Cesarean section, instead of having another Cesarean section. ***Health plans are required to report the C-Section Rate. Reporting the VBAC-Rate is not required for the 1996 reporting year. The measure VBAC-Rate has been deferred because of persistent problems with the identification of numerator and denominator for this rate from administrative sources. Health plans should develop a method to track VBAC's and repeated C-Sections, e.g., utilizing the newly introduced CPT-4 codes 59610-59622. This measure will be required for the 1997 reporting year.***

Births and Average Length of Stay, Newborns

This measure estimates how many infants were born in the health plan during the reporting year and how long these newborns remained hospitalized on average. Average length of hospital stay is listed for well newborns and for those who had medical problems. ***This measure is required for reporting.***

Mental Health Utilization — Inpatient Discharges and Average Length of Stay

Purchasers may be interested in rates of use of mental health services by members. This measure estimates how many hospitalizations for mental health disorders occurred during the reporting year and how long patients stayed in the hospital on average. ***This measure is required for reporting.***

Mental Health Utilization — Percentage of Members Receiving Inpatient, Day/Night Care and Ambulatory Services

Several "intensity levels" of mental health care are identified: hospital treatment, day/night care (a level of intermediate care where a patient may live at home and visit a therapeutic institution during the day) and ambulatory treatment. Purchasers may want to know the percentage of members who received mental health services in each of these intensity levels. ***This measure is required for reporting.***

Readmission for Selected Mental Health Disorders

This measure estimates how many patients who got hospital treatment for mental health disorders (such as schizophrenia or depression) needed intensive treatment again, based on readmission to inpatient treatment within 3 months and a year after the first hospitalization. Patients may require readmissions for a number of reasons such as severity of illness that makes it difficult for patients to respond to effective treatment, or problems in the provision of effective treatment by the health plan, and other factors. ***This measure is required for reporting.***

Chemical Dependency Utilization — Inpatient Discharges and Average Length of Stay

Chemical dependency, most commonly alcohol dependency, is very costly to purchasers. Purchasers may be interested to know rates of use of chemical dependency services by health plan members.

This measure estimates how many hospitalizations for chemical dependency occurred during the reporting year and how long patients stayed in hospital on average. ***This measure is required for reporting.***

Chemical Dependency Utilization — Percentage of Members Receiving Inpatient, Day/Night Care and Ambulatory Services

Several "intensity levels" of care for chemical dependency are listed: hospital treatment, day/night care and ambulatory treatment. Purchasers may want to know the breakdown of members who received mental health services in these intensity levels. ***This measure is required for reporting.***

Readmission for Chemical Dependency

This measure estimates how many patients who needed hospital treatment for chemical dependency problems had to be readmitted to inpatient treatment within 3 months and within a year after the first hospitalization. Patients may require readmissions for a number of reasons, such as severity of illness that makes it difficult for patients to respond to effective treatment, problems in the provision of effective treatment by the health plan, and other factors. ***This measure is required for reporting.***

Use of Behavioral Health Services

Access to necessary care is of particular interest to managed care consumers. Many want to know whether a plan that offers mental health coverage in any way restricts access to those services. This measure provides information about the percentage of plan members with this type of coverage who received mental health services — either a face- to-face visit or a hospital stay — during the year. This information is reported separately for patients in different age groups and with different diagnoses. Since the use of services varies depending on factors such as the age of the patient and the diagnosis, these contingencies have to be considered by the consumer when using this data for plan comparisons.

This measure is being evaluated for inclusion in a future reporting set. Plans' variable benefit structures may need to be accounted for to make this a valid measure for comparing plans. The applicability of this measure, which was originally designed for use by behavioral health care organizations, to all health plans needs to be evaluated. These issues, among others, will be evaluated during the testing phase.

Outpatient Drug Utilization

Purchasers may be interested in information on the use of prescription drugs by members and the associated costs, such as the total costs for prescribed drugs, the average cost for drugs per member and the average number of prescriptions per member within a year.

This measure provides this information for members with a pharmacy benefit. Users should keep in mind that use of pharmaceuticals is influenced by many factors, and that prescription costs may differ from plan to plan for a number of reasons, such as proportion of health plan members with a chronic condition. ***This measure is required for reporting.***

INFORMED HEALTH CARE CHOICES

People need to take an active role in their health care planning; to do so, they need to have the information and understanding necessary to make informed choices about treatment options. The measures in this domain look at how well plans are helping their members to participate in decisions about their own health care.

This domain includes three measures. One asks the plan to describe its efforts to ensure that new members know how the plan works and what alternatives, resources and grievance procedures are available to them. Another measure determines whether the plan makes its informational and educational materials available in different languages for non-English speaking members. The final measure in this domain gauges the extent to which the plan is counseling menopausal women on the risks and benefits of hormone replacement therapy.

New Member Orientation/Education

Plans should inform members about how the plan works. Consumers may want to know how a plan initiates its members into the network, and what resources it makes available to help new patients make the most of plan services.

This measure allows a plan to describe the procedures it uses to orient and educate new members on how to use its services. ***This measure is required for reporting.***

Language Translation Services

In some communities, language barriers undermine the level of care that some patients in the plan receive, and members and purchasers may be interested in the extent to which a plan provides written materials in languages other than English.

This measure asks for an inventory of all non-English language member materials. ***This measure is required for reporting.***

CHAPTER 4

Interpretation and Use

of the HEDIS Measures

INTERPRETATION OF HEDIS DATA

HEDIS 3.0 is a tool that will provide individuals with more information to help them assess the relative performance of health plans. In this section, readers are offered some guidance on how these measures can help them to assess the relative value of their health plan choices.

Different people will, and should, look at HEDIS information differently. Some are interested in getting a picture of how well a health plan performs overall. A young couple starting a family may be most interested in how well a health plan does in providing maternal and child health services. Someone with asthma might be interested in how well the health plan takes care of asthmatics. How individuals use HEDIS will depend on what they want to know. Even so, there are certain things all users should think about when they begin to use this data to make comparisons among plans.

First, no single statistic should be interpreted in isolation of others. HEDIS is a set of measures, and many of the measures are best understood in the context of others. The user should look for patterns in the data — these patterns will reveal the picture more clearly. What sort of patterns are more important? We suggest that users try to group measures that are related in some way, and look for health plans that are consistently better than (or worse than) a comparison group. Here are some of the ways that measures might be grouped to identify important patterns of performance:

- **By "domain":** Clearly, we believe there are common issues that underlie the measures in the various HEDIS 3.0 domains (Effectiveness of Care, Access/Availability of Care, Satisfaction with Care, Cost of Care, and so on). Health plans that perform consistently within one domain may be demonstrating that they have solved (or failed to solve) some of the basic problems that we are concerned about. For example, a plan that has consistently high scores on Effectiveness of Care measures may have chosen its network of providers extraordinarily well and may be providing them — across the board — with the tools (guidelines, feedback, information systems support) that they need to achieve superior outcomes. On the other hand, a plan that scores poorly on a number of Access/Availability measures may have a network that is too small or may have care management programs that are unduly restrictive and that create inappropriate barriers to access. A consistent pattern of performance within a domain should tell the user something important about how well a health plan is achieving the results that define the need for that category of measurement. That pattern is far more meaningful than isolated performance excellence or deficit.

- By "type of care" (underlying health care process): Health care is an exceedingly complex process, but it is possible to think of it as having some fundamental components (or "subprocesses"). The CPM identified several, to help organize its approach to measurement. Grouping measures along the following lines will help us understand whether the health plan effectively manages these components of care:

Disease Prevention	How effectively is the health plan preventing illness?
Screening and Early Detection	How effectively is the health plan detecting illness at the stage at which it is most treatable?
Acute and Chronic Care	How effectively is the health plan returning those who are acutely and chronically ill to their baseline level of health?
	How effectively is it preventing the loss of health and function in persons with chronic illness?

  For example, a health plan with consistently high rates of mammography, immunization, Pap testing, flu vaccination for the senior population and retinal exam screening for diabetics is very likely to be actively working to prevent disease and to detect it early. That success probably means that the health plan is educating its members about the importance of this care, is reaching out to members to alert them when routine care is required, is working to lower barriers to access for that care, is providing incentives to its providers to deliver necessary care, and is tracking members so that it recognizes when a member has (or has not) received the care needed. A conclusion about the success of the plan at achieving results by type of care is far more important than a conclusion about any single measure. And the confidence we can have that this more important conclusion is justified is much higher if we observe a pattern across measures, rather than success on an isolated measure.

- By population: The care needs of different populations vary, and health plan systems for managing care may be quite population-specific. The most obvious example, of course, is the network of providers: it may be pediatricians who care for children and internists who care for adults — but among adults it may be obstetrician/gynecologists who provide much of the care to women, and geriatricians who provide much of the care to seniors. As a result, looking at the set of measures that relate to children's health, or to women's health, or to senior's health may tell us something important about a health plan's overall ability to meet the needs of one population or another.

- By clinical condition: Similarly, the care needs of persons with different medical conditions will vary, and health plan systems for managing care may be quite condition-specific. To get a clearer sense of how effectively a plan is managing care for patients with specific conditions (heart disease, breast cancer, diabetes, and so on), look for a pattern across measures to evaluate different aspects of care for those conditions. A pattern of excellence here might suggest that a health plan has coherent and integrated strategies for managing care for those conditions, and that it has implemented those strategies successfully.

Second, there are many reasons why measured results might differ. Of course, in many cases, results will differ because one plan is doing something — providing higher quality care — that others are not. What, for example, might a health plan be doing to account for higher rates of immunization of children? Perhaps it stays open during hours (such as evenings or weekends) that are more convenient for working parents to bring in their children. Perhaps it has a computer system for tracking immunizations, so that it can determine who has missed a shot and notify those in need. Perhaps it has educated its pediatricians and family physicians about when it is appropriate to immunize a child. (Many physicians, for instance, still do not recognize that a cold or low-grade fever is no reason to delay giving a necessary vaccination.) Perhaps the plan has offered parents an incentive to bring in a child for needed shots: a chance to win a gift, a coupon for diapers, or a birthday reward when the basic immunization series is completed at age two.

These are all steps that a plan can take — and some have taken — to improve childhood immunization rates. There are other strategies, as well, that innovative health plans committed to high-quality care are using. The power of HEDIS is that it enables users to recognize those plans that have made successful efforts to improve care.

But are there other reasons that HEDIS measures may vary across plans, reasons other than differences in quality? Unfortunately, the answer is yes. While HEDIS 3.0 represents a big step forward, performance measurement is still a young and relatively immature science. There is a need for the science of measurement to improve before HEDIS data will be free of potential confounders. In the meantime, it's important that those who use HEDIS data have some sense of what other factors need to be considered when interpreting HEDIS results.

What other factors could cause HEDIS measures to vary, aside from quality of care? Here are four possible answers:

- We live in a world of chance; there is some possibility that a health plan's reported HEDIS results are different from a "true value" simply because there is some randomness in the world. This is particularly a problem because HEDIS data is often estimated from samples of health plan data. Sampling itself introduces chance into measurement — there is always some chance that the sample chosen does not truly reflect the underlying population from which it was drawn. The larger the sample, the less likely this is — but even with the relatively large samples required for HEDIS calculations, we cannot be sure that the estimated value is in fact correct. For most statistics, samples are required so that we can be quite confident that the true value is within 5-10% of the estimate. But plans that differ by less than 10% may not be truly different; that is, we may be observing differences that are due to chance (not differences in quality).
- The characteristics of the population — as well as the performance of the health plan — can affect outcomes. For example, suppose one health plan serves a group of women that is at higher risk for having low birth-weight babies because many of the women are older than 35. If this plan is compared to another plan with a younger female population, one would expect a difference in the percentage of babies that are low birth weight, even if both plans were delivering care identically. There are, in fact, many things (such as the composition of the health plan's population with respect to age, sex, race, and standard of living) that may affect health plan results, over which the plan has little or no control.

It is possible, with the right data and the right formulas, to adjust HEDIS measures so that two plans are truly comparable to each other. This is called risk adjustment, because it adjusts the rates for factors that increase the risk of bad outcomes. Getting the right data and formulas for risk adjustment takes time and effort. One of the HEDIS 3.0 measures — The Health of Seniors — includes a specific risk adjustment protocol. In general, though, techniques for risk adjusting are still needed. NCQA will be working with researchers and with health plans to develop such techniques for many of the measures that are most likely to be affected by population risk. These measures will not be reported until those techniques have been developed. Even so, virtually any statistic can be affected by differences in health plan populations if those differences are large enough; it is worth considering how population risk might affect any measured result.

- There is variation in the type, quality, and completeness of the data plans use to estimate HEDIS measures. This variation (what goes into the calculation) can cause variation in results (what comes out of the calculation). Some health plans rely on automated data (from submitted claims or transaction records, or from laboratory or pharmacy systems); others rely more heavily on the paper medical record. Neither data set is perfect; more than that, there are differences in the nature of the imperfections that might cause measures that are calculated differently to vary. Administrative datasets, for example, may underestimate rates at which services that are not reimbursed on a per-service basis are provided: estimates of immunization and screening test rates from administrative datasets may be low if those services are covered under capitated (per member, not per service) contracts; and estimates of prenatal care visit rates may be low if prenatal care visits are paid for as part of a global fee for delivery (and not specifically identified in transaction records). On the other hand, administrative records of birth weight may be inaccurate; as a result, rates calculated from hospital discharge data may underestimate the rate of low birth weight. When comparing plans, it is important to know something about the type and quality of the data used by the plans. If plans vary significantly in these regards, then there might need to be vast performance differences in order to conclude that we are really observing differences in quality of care.

- There can be errors in the calculations. Each measure in HEDIS 3.0 has clearly defined instructions for how it is to be calculated. Nevertheless, the instructions are complicated, and programmers, medical record reviewers and quality managers can and do make mistakes.

There is no protection against such errors, except to have HEDIS production systems audited by an independent third party. Some health plans have already begun to undergo such audits, to offer assurance to the users of their data that it is free of such error. NCQA believes strongly that such audits are required and is working to standardize the approach to HEDIS audits. We anticipate that the quality of HEDIS data will improve rapidly, as audits become a routine component of HEDIS reporting. NCQA hopes to make significant progress in 1996 and 1997, in order to make that possible in 1998.

USE OF HEDIS DATA

How HEDIS data will be used will depend upon the user and the user's objective. There are a number of users and uses for which HEDIS was designed.

First, purchasers — both private and public — will use HEDIS data to make comparisons among health plans. These comparisons should be informed by the issues above but, where significant and important differences between plans exist, these comparisons should help to direct health plan selection and help to support contracting and performance target-setting initiatives that currently depend only on price. HEDIS data should also stimulate a dialogue between purchasers and their health plan suppliers — a dialogue about performance, about the reasons that performance may vary from desired levels, about efforts underway at the plan to improve performance, and about other evidence that the plan may have to demonstrate that those efforts have been (or promise to be) successful.

Second, health plans will use HEDIS data to identify opportunities for improvement and to monitor the success of their efforts to improve. HEDIS data provides not only a means to track improvement internally; as a set of measurement standards, HEDIS gives health plans the ability to compare their results with other plans. This will help a given plan understand the gap between the plan's performance and the best achievable, and will help plan management set realistic targets for improvement over time.

Third, regulators — state and federal — may use HEDIS data as part of their oversight processes. Strategies for doing so are still being defined, but the potential for regulators to use available performance information to eliminate burdensome regulations seems clear. NCQA is working with a number of states to incorporate HEDIS and performance measurement into oversight processes that are streamlined and cost-effective.

Finally, we anticipate that consumers will use HEDIS data to assist them when they make choices about health plans. Some of this information may come to them directly; some of it may come from another source (their employer, or publications such as *Health Pages* and *Washington Consumers' Checkbook*, or mainstream magazines and newspapers). Some information may come to them as raw data; it is very likely that others will try to summarize raw HEDIS data to make it easier for consumers to understand.

All of these uses are appropriate, yet all of them should consider the need for thoughtful interpretation. And all of them should be made drawing on the fullest set of data available. It is important to remember that HEDIS exists as one component of a larger system for providing information about the quality and performance of health plans. As valuable as HEDIS data is in general — and as HEDIS 3.0 data will be in particular — NCQA Accreditation results provide an important complementary view. We strongly encourage users of HEDIS data — whether they be purchasers, public sector program managers, other regulators, or consumers — to use both data sets to help guide their choices among health plans. This data is readily and inexpensively available — from public sources, from health plans, or through NCQA's *Quality Compass* Reports, and should be used together to provide the most complete view possible.

HEDIS® 3.0

HEALTH PLAN EMPLOYER DATA & INFORMATION SET

TECHNICAL SPECIFICATIONS

VOLUME 2

NCQA

National Committee for Quality Assurance

EFFECTIVENESS OF CARE

CHILDHOOD IMMUNIZATION STATUS

Summary of changes from HEDIS 2.5 and/or Medicaid HEDIS

- *Medicaid HEDIS continuous enrollment standard of 12 months has been adopted.*
- *Individual vaccination rates are now required, in addition to an overall combined rate. (Individual vaccination rates were included in Medicaid HEDIS and only recommended in HEDIS 2.5.)*
- *Two hepatitis B vaccines are required. (Medicaid HEDIS required three hepatitis B vaccines.)*
- *DTaP is now approved for the first, second and third vaccines as well as the 4th vaccine.*
- *Specifications for acceptable documentation of immunizations for hybrid methodology have been modified.*
- *An exclusionary rule has been added for children who are identified as being immunocompromised, for whom the specified immunizations are contraindicated.*

Description

The percentage of Medicaid and commercially enrolled children who turned two years old during the reporting year, who were continuously enrolled for 12 months immediately preceding their second birthday (including members who have had no more than one break in enrollment of up to 45 days during the 12 months immediately preceding their second birthday), and who have received the following immunizations:

- Four DTP or DTaP vaccinations (or an initial DTP or DTaP followed by at least three DTP, DTaP and/or DT) by the second birthday
- Three polio (IPV or OPV) vaccinations by the second birthday
- One MMR between the first and second birthdays
- At least one H influenza type b vaccination between the first and second birthdays
- Two hepatitis B vaccinations by the second birthday (with one of them falling between the sixth month and second birthday)
- A combined rate including children who have received <u>all</u> of the immunizations listed above

Administrative Data Specification

Calculation: This specification uses membership data to identify children who have turned two years old during the reporting year and claims/encounter data to identify those two-year-old members who have received the specified vaccinations. Health plans will report six rates for each payer (i.e., Medicaid and commercial). Separate calculations are required for the Medicaid and commercial populations.

Denominator: Two separate denominators, one for each of the two populations, are derived using all enrolled children whose second birthday occurred during the reporting year, who were members of the plan as of their second birthday and who were continuously enrolled for the 12 months immediately preceding their second birthday

and who were not contraindicated for any of the specified antigens. Members who have had no more than one break in enrollment of up to 45 days during the 12 months preceding their second birthday should be included in this measure.

Numerator: The number of members in the denominator for each of the two populations (Medicaid and commercial) who received the following immunizations. Calculate six numerators:

- At least four DTP or DTaP (CPT-4 code 90700 or 90701 or 90711 or 90720 or 90721) with different dates of service by the child's second birthday, or an initial DTP or DTaP followed by at least three DTP, DTaP and/or DT (CPT-4 code 90702)
- At least three polio vaccinations-OPV or IPV-(CPT-4 code 90711 or 90712 or 90713) with different dates of service by the child's second birthday
- At least one MMR (CPT-4 codes 90705 or 90707 or 90708 or 90710 for measles and 90704 or 90707 or 90709 or 90710 for mumps and 90706 or 90707 or 90708 or 90709 or 90710 for rubella) with a date of service falling between the child's first and second birthdays
- At least one H influenza type b (CPT-4 code 90737 or 90720 or 90721) with a date of service falling between the child's first and second birthdays
- Two hepatitis B (CPT-4 code 90731 or 90744 or 90747) with different dates of service by the child's second birthday (with one of them falling between the child's sixth month and second birthday)
- A combined rate including children who have received all of the immunizations listed above.

Hybrid Method Specification

Calculation: This specification uses membership data to identify those children who have turned two years old during the reporting year and claims/encounter data and/or medical record review to identify those children who have received the specified vaccinations. Health plans will report six rates for each payer (i.e., Medicaid and commercial). Separate calculations are required for the Medicaid and commercial populations.

Denominator: Two separate denominators, one for each of the two required calculations, are derived using random samples of 411 Medicaid members and 411 commercial members from the health plan's eligible populations. Eligible members include all children whose second birthday occurred during the reporting year, who were members of the plan as of their second birthday, who were continuously enrolled for the 12 months immediately preceding their second birthday and who were not contraindicated for any of the specified antigens. Members who have had no more than one break in enrollment of up to 45 days during the 12 months preceding their second birthday should be included in this measure.

Numerator: The number of members in the denominator for each of the two populations (Medicaid and commercial) who received the following immunizations. Calculate six numerators described below, as documented through either administrative data or medical record review:

- At least four DTP or DTaP (CPT-4 code 90700 or 90701 or 90711 or 90720 or 90721) with different dates of service by the child's second birthday, or an initial

DTP or DTaP followed by at least three DTP, DTaP and/or DT (CPT-4 code 90702)

- At least three polio vaccinations-OPV or IPV-(CPT-4 code 90711 or 90712 or 90713) with different dates of service by the child's second birthday
- At least one MMR (CPT-4 codes 90705 or 90707 or 90708 or 90710 for measles and 90704 or 90707 or 90709 or 90710 for mumps and 90706 or 90707 or 90708 or 90709 or 90710 for rubella) with a date of service falling between the child's first and second birthdays
- At least one H influenza type b (CPT-4 code 90737 or 90720 or 90721) with a date of service falling between the child's first and second birthdays
- Two hepatitis B (CPT-4 code 90731 or 90744 or 90747) with different dates of service by the child's second birthday (with one of them falling between the child's sixth month and second birthday)
- A combined rate including children who have received <u>all</u> of the immunizations listed above.

Note: For immunization information obtained from patient history, plans may count the immunization in HEDIS reports if the medical record contains the following information: an author-identified and dated immunization history or an author-identified note indicating the place of service, the name(s) of the specific antigen and the date the immunization(s) was given. Entries made in the medical record at the time immunization(s) was given must include either an author-identified note indicating the name(s) of the specific antigen and the date the immunization(s) was given, <u>or</u> the vaccine lot number. A certificate of immunization prepared by an authorized health care provider <u>or</u> agency must include the specific dates and types of immunizations administered. (Refer to the note below on transferred records.) All medical record entries must be dated by the child's second birthday (i.e., entries made retroactively may not be counted). The following do not constitute sufficient evidence of immunization for HEDIS reporting:

- *A note that the "member is up-to-date" with all immunizations, without a listing of the dates all immunizations were given and the names of the immunization agents.*
- *Records transferred from a previous health care provider or agency without a note that the authorized health care provider, to whom the records were transferred, has reviewed them.*

Notes

- In states in which the law allows for an exception to children receiving pertussis vaccination, plans may use any combination of four DTP, DTaP and/or DT.
- The 1996 Recommended Childhood Immunization Schedule includes a newly recommended Varicella-Zoster Virus Immunization. The schedule recommends that one dose of the varicella vaccine be administered at 12 to 18 months of age. <u>**To reflect the updated Childhood Immunization Schedule, HEDIS will include the varicella vaccine for the 1997 reporting year as a separate rate and not part of the combined rate.**</u>
- For plans that offer a Medicaid product and apply a full-month eligibility criterion to its beneficiaries and for plans that verify enrollment in monthly intervals (i.e., in increments of one month) on their information systems, a 45-day break in enrollment is the equivalent of a 30-day or one-month eligibility period.

- The Centers for Disease Control and Prevention, American Association of Family Physicians and American Academy of Pediatrics recommend that a total of three hepatitis B vaccinations be administered to children before 18 months of age. The first hepatitis B vaccine tends to be administered by hospitals at birth, yet may not be recorded on claims forms. Consequently, information on the first hepatitis B vaccine may not be available in health plan administrative databases. To provide health plans with transition time to develop systems that can track the first hepatitis B immunization, HEDIS specifies that only two vaccinations be provided by the child's second birthday, for reporting years 1996 and 1997. The recommended three hepatitis B vaccines will be required for the 1998 reporting year.
- Children who are identified as being immunocompromised for a specific vaccine may be excluded from the denominator of that specific vaccine rate. If a plan excludes an immunocompromised child from a specific vaccine, then the plan must exclude that child from all other specific vaccine rates, as well as from the overall rate. Thus, the denominator for each specific vaccine, and for the overall rate, will be the same. Plans that choose to exclude immunocompromised children from the measure should look for contraindications as far back as possible in the patient's history, through either administrative data or medical record review. Refer to Table 1A for contraindications and related codes. This is a change from HEDIS 2.5 and Medicaid HEDIS in an effort to produce more accurate rates.

Table 1A: Contraindications for Childhood Immunizations

Immunization	Contraindication	ICD-9-CM Code
Any particular vaccine	anaphylactic reaction to the vaccine or its components	999.4
Any particular vaccine	vaccine not rendered due to contraindication	V64.0
DTP/DTaP	encephalopathy within 7 days of previous dose of DTP	323.5
OPV	HIV-infected or household contact with HIV infection	infection V08 symptomatic 042
OPV and MMR	immunodeficiency, including genetic (congenital) immunodeficiency syndromes	279.0x-279.1x, 279.2-279.9
OPV and MMR	cancer of lymphoreticular or histiocytic tissue	200.xx-202.xx
OPV and MMR	multiple myeloma	203.0x, 203.1x, 203.8x, with a fifth digit of '0' or '1'
OPV and MMR	leukemia	204.xx-208.xx, with a fourth digit of '0', '1', '2', '3', '8' or '9'; with a fifth digit of '0' or '1'
MMR	anaphylactic reaction to egg ingestion or streptomycin	995.68, E930.6
IPV	anaphylactic reaction to egg ingestion or neomycin	995.68, E930.8
Hib	none identified	
hepatitis B	anaphylactic reaction to common baker's yeast	995.69

* MMWR. Jan 28, 1994. Vol. 43. No. RR-1.

ADOLESCENT IMMUNIZATION STATUS

New Measure

Description

The percentage of Medicaid and commercially enrolled adolescents whose 13th birthday was in the reporting year, who were continuously enrolled for 12 months immediately preceding their 13th birthday and who received a second dose of MMR by age 13. Members who have had no more than one break in enrollment of up to 45 days during the 12 months preceding their 13th birthday should be included in this measure.

Administrative Data Specification

Calculation: This specification uses membership data to identify adolescents who turned 13 years old during the reporting year and claims/encounter data to identify adolescents who received a second dose of MMR by age 13. Separate calculations are required for the Medicaid and commercial populations.

Denominator: Two separate denominators, one for each of the two required calculations, are derived using all enrolled adolescents whose 13th birthday was in the reporting year, who were members of the health plan as of their 13th birthday, who were continuously enrolled for 12 months immediately preceding their 13th birthday and who were not contraindicated for MMR. Members who have had no more than one break in enrollment of up to 45 days during the 12 months preceding their 13th birthday should be included in this measure.

Numerator: The number of adolescents in the denominator for each of the two populations (Medicaid and commercial) who received a second dose of MMR by age 13 (see CPT-4 procedure codes below) or had a seropositive test result for measles, mumps or rubella by their 13th birthday. Health plans need only identify one MMR for this measure and should count members who are identified as having one dose of MMR administered between ages 4 through 12 years.

Measles (CPT-4 codes 90705 or 90707 or 90708 or 90710)

Mumps (CPT-4 codes 90704 or 90707 or 90709 or 90710)

Rubella (CPT-4 codes 90706 or 90707 or 90708 or 90709 or 90710)

Hybrid Method Specification

Calculation: This specification uses membership data to identify adolescents who turned 13 years old during the reporting year and claims/encounter data and/or medical record review to identify adolescents who received a second dose of MMR by age 13. Separate calculations are required for the Medicaid and commercial populations.

Denominator: Two separate denominators, one for each of the two required calculations, are derived using random samples of 411 Medicaid members and 411 commercial members from the plan's eligible populations. Eligible members include,

respectively, Medicaid enrolled adolescents and commercially enrolled adolescents who turned 13 years old during the reporting year, who were members of the plan as of their 13th birthday, who were continuously enrolled for 12 months immediately preceding their 13th birthday and who were not contraindicated for MMR. Members who have had no more than one break in enrollment of up to 45 days during the 12 months preceding their 13th birthday should be included in this measure.

Numerator: The number of adolescents in the denominator for each of the two populations (Medicaid and commercial) who received a second dose of MMR or a seropositive test result for measles, mumps or rubella by age 13, as documented by administrative data (see CPT-4 procedure codes below) or medical record review.

Measles (CPT-4 codes 90705 or 90707 or 90708 or 90710)

Mumps (CPT-4 codes 90704 or 90707 or 90709 or 90710)

Rubella (CPT-4 codes 90706 or 90707 or 90708 or 90709 or 90710)

Note: *For immunization information obtained from patient history, plans may count the immunization in HEDIS reports if the medical record contains the following information: an author-identified and dated immunization history or an author-identified note indicating the place of service, the name(s) of the specific antigen and the date the immunization(s) was given. Entries made in the medical record at the time immunization(s) was given must include either an author-identified note indicating the name(s) of the specific antigen and the date the immunization(s) was given, or the vaccine lot number. A certificate of immunization prepared by an authorized health care provider or agency must include the specific dates and types of immunizations administered. (Refer to the note below on transferred records.) All medical record entries must be dated by the member's 13th birthday (i.e., entries made retroactively may not be counted). The following do not constitute sufficient evidence of immunization for HEDIS reporting:*

- *A note that the "member is up-to-date" with all immunizations, without a listing of the dates all immunizations were given and the names of the immunization agents.*
- *Records transferred from a previous health care provider or agency without a note that the authorized health care provider, to whom the records were transferred, has reviewed them.*

Notes

- Hepatitis B, varicella and tetanus and diphtheria (Td) vaccinations are not required for 1996 reporting. The 1997 Recommended Childhood Immunization Schedule recommends that these vaccinations be administered to adolescents by age 13 years. The Td vaccine is being considered for 1997 reporting. The hepatitis B and varicella vaccinations will be phased-in and required for 1997 reporting. Specifically, documentation of one hepatitis B vaccine by the child's 13th birthday and either one varicella vaccine or documented history of the chicken pox by age 13 will be required.
- We recognize that without identifying the first and second MMR, health plans will be unable to verify that an MMR administered between ages 4 through 12 years is the second MMR. Health plans need only identify one MMR for this measure and should count all members who are identified through either administrative data or medical record review as having one dose of MMR administered between ages 4 through 12 years.

- For plans that offer a Medicaid product and apply a full-month eligibility criterion to its beneficiaries and for plans that verify enrollment in monthly intervals (i.e., in increments of one month) on their information systems, a 45-day break in enrollment is the equivalent of a 30-day or one-month eligibility period.
- Adolescents who are identified as being immunocompromised for the MMR vaccine may be excluded from the denominator of this measure. Plans that choose to exclude these immunocompromised adolescents from the denominator of this measure should look as far back as possible in the patient's history, through either administrative data or medical record review, for contraindications. Refer to Table 1B for the listing of contraindications.

Table 1B: Contraindications for Adolescent Immunizations

Immunization	Contraindication	ICD-9-CM Code
Any particular vaccine	anaphylactic reaction to the vaccine or its components	999.4
Any particular vaccine	vaccine not rendered due to contraindication	V64.0
MMR	immunodeficiency, including genetic (congenital) immunodeficiency syndromes	279.0x-279.1x, 279.2-279.9
MMR	cancer of lymphoreticular or histiocytic tissue	200.xx-202.xx
MMR	multiple myeloma	203.0x, 203.1x, 203.8x, with a fifth digit of '0' or '1'
MMR	leukemia	204.xx-208.xx, with a fourth digit of '0', '1', '2', '3', '8' or '9'; with a fifth digit of '0' or '1'
MMR	anaphylactic reaction to egg ingestion or streptomycin	995.68, E930.6

* MMWR. Jan 28, 1994. Vol. 43. No. RR-1.